

Response  
Application No. 10/814,807  
Attorney Docket No. 042320

### REMARKS

Claims 1-5 are pending in this application, of which claims 4 and 5 have been withdrawn.

No amendment has been made in this Response.

(1) Claims 1-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nowobilski et al. (U.S. Patent No. 4,726,974) in view of Rusek Jr. et al. (U.S. Patent No. 5,591,505).

(i) The Examiner relies on Rusek Jr. et al. with respect to the binder coating amount that Nowobilski et al. fail to disclose. However, the teaching of Rusek Jr. et al. is an amount of an inorganic binder. Rusek Jr. et al. do not teach any amount for organic binders or resin binders. A combination of the references does not make the coating amount of a resin binder. It is unreasonable to combine the Rusek's inorganic binder amount with the Nowobilski resin binder.

(ii) In addition, as argued in the previous Response, Rusek Jr. et al. teach away from using organic binder materials (col. 1, lines 24-60). For example, Rusek Jr. et al. teach that "*organic materials are not suitable for all insulation applications* (col. 1, lines 24-25)," and that "*inorganic binder material are desired for many applications* (col. 1, lines 39-40)," and that "*(a)ccordingly, the need remains for an insulation product having an inorganic binder material* ....(col. 1, lines 57-58). In the Summary of the Invention, Rusek Jr. et al. teach that the invention is directed to an insulation product using an inorganic thermoplastic binder (col. 1, line

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64 to col. 2, line 8). The teaching of about 0.1% to about 7% by weight binder, where the Examiner relies on, is the amount of the inorganic binder (col. 5, lines 23-34).

In response to the Applicants' arguments, the Examiner states that Nowobilski discloses that an organic or an inorganic binder can be used to hold together the fibreglass fibers, and therefore, since Nowobilski teaches that iorganic binders can be used, Rusek Jr. et al. does not teach away for inorganic binder amounts. Page 4, lines 5-7 of the outstanding Office Action.

The Examiner's statement that *since Nowobilski teaches that inorganic binders can be used, Rusek Jr. et al. does not teach away for inorganic binder amounts* is unpersuasive. Because Rusek Jr. et al. teach that organic binder materials are not suitable and inorganic materials are desired (col. 1, lines 26-40), the Rusek's amount of the inorganic material cannot be applied to the organic binder of Nowobilski.

(iii) In the previous Response, the Applicants showed the unexpected results of claim 1 of the present invention. Unexpected results can be found in the coating amount of the resin binder. In the Examples of the binder coating amount of 0.5 to 1.5wt%, the initial thermal conductivity was the same as, or close to, that of the Example which did not have the resin binder coating ("none" in Table 1). However, such an excellent thermal conductivity could have been maintained for 50 days.

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On the other hand, the thermal conductivity and its maintenance were poor in the Examples whose coating amounts were 3.0 and 10.0 wt%. These Examples significantly increased the thermal conductivity after 50 days. Unexpected results can be found in Tables 1 and 2. Because the claimed coating amount of the resin binder shows unexpected results, claim 1 is not obvious over the references.

Even if combining the references as stated by the Examiner, neither of the references teaches the claimed range of the coating amount.

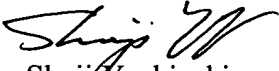
The Examiner is silent about the Applicants' arguments of the unexpected results. Applicants request the Examiner to reconsider the rejection in view of the unexpected results.

(iv) As described at page 2, lines 13-20 of the specification, the inventors of the present invention have found that using an inorganic binder causes problems of the elasticity, cracking, etc. Neither of the references teaches such problems. Thus, the present invention is not obvious over the references.

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(3) In view of the above, claims 1-3 are not obvious over the cited references. Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date. If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case. If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,  
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